



SWEDISH PAIN FORUM 2026

Abstracts

“Between unbearable pain and lack of help”: patients’ experiences of emergency care for exacerbations of chronic pain.

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Background: Emergency care for exacerbations of chronic pain is challenging for patients and healthcare services. Patients seek relief during episodes of severe pain, whereas emergency care is primarily designed, staffed, and resourced to manage acute conditions. Interdisciplinary pain rehabilitation programmes (IPRPs) are evidence-based interventions for chronic pain conditions. However, little is known whether and how IPRPs influence patients’ emergency care use or their experiences of seeking and receiving emergency care. To address this knowledge gap, a mixed-methods research project was developed to examine the relationship between chronic pain, emergency care use and patients’ experiences before and after participation in an IPRP. The present study reports preliminary findings from the qualitative part of this project.

Aim: To explore patients’ experiences of seeking emergency care during episodes of exacerbated chronic pain.

Methods: Individual digital semistructured interviews were conducted with patients referred to an IPRP for chronic pain. The transcripts were analysed using qualitative content analysis.

Results: Preliminary findings indicate considerable suffering, captured in the main theme: *“Between unbearable pain and lack of help”*. Three categories were identified: *“Being forced to seek emergency care when self-management is insufficient”*, *“Distrusting encounters, knowledge gaps, and inadequate care undermine patients’ sense of safety”* and *“Negative care experiences leave deep emotional marks and hinder future help-seeking”*.

Conclusion: Patients seeking emergency care for exacerbated chronic pain are in a highly vulnerable situation, characterized by distress, uncertainty, and insufficient support from the healthcare system. The findings highlight the need to improve staff - patient interactions, care and support for this patient group in emergency departments.

A MULTIFACETED PAIN: A Qualitative Study on perceived health in men with Chronic Pelvic Pain Syndrome

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Background: Chronic pelvic floor pain syndrome (CPPS) is the most common urological diagnosis among men under 50, yet knowledge about men's lived experiences with CPPS remains limited.

Aim: This study aims to deepen the understanding of how men with CPPS perceive their sexual and general health, and to identify which interventions from healthcare and other factors, such as environmental support, may have facilitated their coping and recovery.

Methods: This qualitative study is based on 16 semi-structured interviews with men aged 30 to 57 years who currently have or have previously suffered from CPPS. The interviews were analyzed using thematic analysis.

Results: Most respondents expressed dissatisfaction with the care they received for CPPS, citing a lack of effective treatments, uncertain prognosis, and vague explanations of symptoms. These factors contributed to negative outcomes for both mental and physical well-being. The majority reported poor mental health, and several disclosed having experienced suicidal thoughts. Despite this, few had shared these feelings or been asked about their mental health by healthcare providers. Most participants described a negative impact on sexual health, including painful ejaculation and/or orgasm, and erectile dysfunction. Helpful interventions included physiotherapy, PDE-5 inhibitors, and support from a partner.

Conclusion: There remains a significant lack of knowledge about CPPS within both healthcare and society. Emotions such as shame and fear of burdening others appear to hinder open dialogue. Increased awareness and a more holistic approach in healthcare are needed to better support men with CPPS, particularly regarding sexual and mental health.

The Clinically Aligned Pain Assessment – Revised Swedish Version: Translation and Content Validity of a new multidimensional pain scale in acute care setting.

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Background: Pain is a multidimensional experience, yet assessments in Swedish acute care often rely on unidimensional scales. The Clinically Aligned Pain Assessment (CAPA) is a multidimensional tool developed to support a more comprehensive and person-centered assessment of pain but requires translation and cultural adaptation for use in Sweden.

Aim: The aim of the study was to translate and culturally adapt the Clinically Aligned Pain Assessment tool to Swedish and to test content validity in an acute care setting.

Methods: The translation process was performed using the 10-steps method recommended by International Society for Pharmacoeconomics and Outcomes Research. A content validation through cognitive interviews with inpatients (n=17) were made at a university hospital in the south of Sweden Data were analyzed inspired by the Rapid Identification of Themes from Audio Recordings method and theme coding.

Results: Following the translation process, including forward and backward translation and two expert groups, CAPA-Swe was developed. The Swedish version was modified from the original version of the CAPA with supplementary guiding questions. The cognitive interviews did not entail any change of the domains but some adjustments to the guiding questions were made. The result also showed that the participants, both patients and healthcare professionals, appreciated the content of the CAPA-Swe.

Conclusion: The study demonstrated content validity for the revised CAPA-Swe. that was modified and improved for an acute care setting by adding guiding questions. To ascertain the usefulness of this instrument in Swedish acute care, the psychometric properties of the instrument should be further assessed.

A biopsychosocial perspective on endometriosis: The importance of psychological inflexibility

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Background: Treatment strategies for endometriosis have traditionally been biomedical. There is a need for a more multidimensional understanding of endometriosis and more targeted and individualized treatment interventions, including psychological approaches.

Methods: The aims of this study were twofold: 1) to identify key biopsychosocial characteristics in individuals attending a tertiary clinic for endometriosis and 2) to inform the development of future, targeted, and efficacious interventions by examining the importance of psychological processes central to two scientific models, pain catastrophizing and fear of movement from the fear-avoidance model, and psychological inflexibility from the psychological flexibility model.

Result: Psychosocial variables, more specifically perceived control and powerlessness, social support, and depression, were of particular importance to the symptom structure in this patient population. In contrast, biological factors appeared to have low relevance within this network. When aiming to inform the development of future, promising psychological interventions for endometriosis, psychological inflexibility emerged as the most important psychological process variable in the symptom network.

Conclusions: A multidimensional approach based on the biopsychosocial model appears valuable for understanding endometriosis. Treatment interventions grounded in the psychological flexibility model may hold promise for this patient population, a possibility that warrants further investigation in future studies.

Reclaiming everyday life – patients' experiences of TENS for endometriosis-associated chronic pain

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Background: Swedish national guidelines recommend transcutaneous electrical nerve stimulation (TENS) as a complementary treatment for endometriosis-associated pain. However, knowledge is limited regarding patients' experiences of TENS and factors facilitating or hindering regular use.

Aim: To explore patients' experiences of high-frequency, high-intensity TENS for endometriosis-associated chronic pain, with focus on factors facilitating or hindering its use.

Methods: Participants from an ongoing randomized controlled trial (NCT05152264) evaluating TENS for endometriosis-associated pain were consecutively invited to focus groups after completing a 16-week TENS intervention. Interviews were audio-recorded, transcribed verbatim, and analysed using qualitative content analysis.

Results: Fifteen participants took part in six semi-structured focus groups between September 2022 and March 2025. The overarching theme, "Reclaiming everyday life through TENS and partnership", reflects how regular TENS use reduced everyday pain and facilitated physical and social activities. Partnership with nurses facilitated TENS use through patient education, individualized TENS device demonstrations, and regular follow-up. Personalised support enabled participants to adapt TENS to their individual preferences and support the daily activities. Barriers to TENS use were primarily electrode-related, including accidental detachment during certain activities and mild skin irritation.

Conclusion: TENS may be an effective method for endometriosis-associated chronic pain. Partnership between patients and nurses was experienced as essential for effective TENS use and optimized pain relief by identifying barriers and supporting individualized treatment. Education, practical guidance, and regular follow-up may facilitate integration of TENS into daily life, potentially improving treatment adherence.

To make the invisible visible. The usefulness of creative activities for people with chronic pain

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Background: Pain is a common reason for seeking healthcare. Chronic pain requires different management than acute pain. Pain rehabilitation aims to improve function and quality of life. Occupational therapists support individuals whose disabilities affect participation in everyday activities by helping them develop meaningful and functional activity patterns. By using the individual's creativity, the occupational therapists can empower them to find their own solutions.

Aim: The aim was to describe the usefulness of creative activities in promoting a sense of meaningfulness for people with chronic pain.

Methods: A systematic review was conducted in which searches were performed in the databases CINAHL, AMED, PubMed, and PsycInfo, resulting in 12 studies of which 9 were qualitative, 1 mixed-methods, and 2 quantitative. All studies were appraised using the MMAT tool. The qualitative articles were analysed using thematic analysis. The analysis also included a descriptive summary of the results from the quantitative studies.

Results: The thematic analysis resulted in three themes: "Creative activities as a means of communication," "Reflection on self-image and life situation," and "Therapeutic effects of creative activities," with six subcategories. The results in the quantitative studies showed higher self-reported quality of life following participation in an intervention involving creative activities.

Conclusion: Creative activities are useful in pain rehabilitation as a way of expressing the experience of chronic pain and increase self-awareness, enabling individuals to make beneficial behavioural changes that can improve quality of life. Further research is recommended to deepen the understanding of the usefulness of creative activities in pain rehabilitation.

Experiences and concerns when caring for patients with joint hypermobility and pain – a cross-sectional survey

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Background: Symptomatic joint hypermobility, hypermobility spectrum disorders and hypermobile Ehlers-Danlos syndrome, may be associated with pain, joint instability, fatigue and disability. Most patients receive care in primary care settings, and physiotherapists are described as central. However, clinical challenges are reported by both patients and professionals.

Aim: The specific aim of this study was to explore physiotherapists' experiences and concerns when caring for patients with hypermobility and pain, with the overarching aim of improving health care and support for patients with hypermobility and pain.

Methods: All primary care physiotherapists in the southernmost health-care region of Sweden, Region Skåne, were invited to a rigorously developed survey, containing quantitative and free-text responses addressing examination, diagnostic criteria and treatment.

Results: A total of 221 physiotherapists responded (response rate 45%; mean age 44 years, SD ± 12 ; mean clinical experience 18 years, $\pm$ SD 11). During the past year, 78% had examined and 73% had treated between “a small number” and 20 patients with hypermobility and pain, and 38% had used the diagnostic criteria. However, 88% reported challenges in providing care (diagnostic issues, exercise dosing, symptom complexity, reduced patient adherence, chronic pain). Further education was requested by 82%, along with closer collaboration with specialized care.

Conclusion: Primary care physiotherapists reported challenges in diagnosing and treating patients with hypermobility and pain, and most requested further education and closer collaboration with specialized care.

Insomnia symptom severity predicts long-term pain intensity and bothersomeness across ICD-11 chronic pain categories: a registry-based cohort study

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Background: Insomnia symptoms are common in chronic pain and may contribute to poorer functioning and more persistent symptoms. However, it is unclear whether insomnia symptom severity differs across chronic pain categories or predicts subsequent pain outcomes.

Aim: To examine whether insomnia symptom severity differs across ICD-11 chronic pain categories and whether insomnia symptoms at intake predict pain intensity and pain bothersomeness 12 months later.

Methods: Data were drawn from 4,283 patients registered in the Oslo University Hospital Pain Registry. Cross-sectional analyses included 3,705 patients with baseline data. ICD-10 diagnoses were recoded into ICD-11 chronic pain categories using a published conversion framework. Insomnia symptoms were measured with the Insomnia Severity Index. Longitudinal analyses included 1,163 patients and examined whether baseline insomnia symptoms predicted pain intensity and pain bothersomeness at 12-month follow-up using hierarchical linear regression models.

Results: Insomnia symptom severity was largely similar across pain categories. Patients with chronic primary pain reported slightly lower insomnia symptom severity than patients with chronic neuropathic pain, while no differences were observed between the other categories. Higher baseline insomnia symptom severity predicted both greater pain intensity and greater pain bothersomeness at 12-month follow-up, also after adjustment for age, gender, baseline pain, and psychological factors.

Conclusion: Insomnia symptoms were common across ICD-11 chronic pain categories and predicted pain intensity and pain bothersomeness 12 months later. Sleep assessment should be part of chronic pain evaluation and may help identify a modifiable treatment target in interdisciplinary pain care.

GRASP¹ – understanding immunological mechanisms in knee osteoarthritis and fibromyalgia

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Background: Knee osteoarthritis and fibromyalgia are common causes of chronic pain and functional impairment, negatively affecting work ability and quality of life. In primary care, structured rehabilitation programmes—Artrosskola and Smärtskola—are recommended, but longitudinal real-world evidence in working-age populations is limited.

Aim: To follow participants in Artrosskola and Smärtskola over one year to evaluate effects on pain, physical function, quality of life, sickness absence, and use of potentially addictive medications, and to explore associated biological changes.

Methods: This prospective pilot study is conducted in primary care and includes working-age adults (20–75 years) with knee osteoarthritis (KOOS <80, n=50), fibromyalgia (ACR 2016; KOOS >80, n=50), and a control group with sleep difficulties (KOOS >80, n=100). Individuals with chronic pain or pain intensity >20 mm (VAS 0–100) are excluded. Assessments occur at baseline, mid-program, post-intervention, three months, and one year. Outcomes include clinical measures (blood pressure, BMI, waist circumference), blood biomarkers (routine panels and samples for future immunological analyses), and skin biopsies (baseline, post-intervention, three months). Standardized questionnaires assess pain, function, quality of life, and work ability. Data on sick leave and medication use are extracted from medical records. Immunological analyses of nerve and immune cells, as well as related proteins, are conducted in collaboration with Swedish universities, including Karolinska Institutet and Uppsala University. Data are collected via secure digital systems and quality checked. Analyses include descriptive statistics, longitudinal models, and correlation/regression analyses.

Conclusion: Findings will provide integrated clinical, biological, and patient-reported data to inform rehabilitation strategies and guide future large-scale studies.

1 Generalized and Regional pain with Associated Signaling Pathways (GRASP)

Can self-monitoring support person-centred pain care? - First results from a pilot study

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Background: Communicating the experience of pain and how it affects everyday life can be difficult and hamper effective chronic pain care planning, delivery and follow-up. Self-monitoring may facilitate person-centred communication and partnership in chronic pain care.

Aim: To explore how the patients experienced self-monitoring and how they perceived that the generated information was used in their care.

Methods: The project My Pain Survey – for Support and Partnership (PAS-SAP) pilot-tested a digital application in 2 primary care units in Sweden. The healthcare professionals invited patients to try self-monitoring through an app between visits, in which the patients can log their pain, physical activity, sleep, medication and/or stress.

Together with the healthcare professional they can monitor graphs of their results. Semi-structured interviews were performed with 8 patients.

Results: Preliminary results indicate that people with chronic pain experienced that self-monitoring could provide a new understanding of themselves, reflection, motivation, meaning and routines as well as ease anxiety. They perceived that self-monitoring could facilitate communication through allowing healthcare professionals to understand them better and that they felt less forgotten by healthcare professionals. Some participants did not experience much change, and it was pointed out that self-monitoring might be relevant when pain is more dynamic, such as in early stages of pain.

Conclusion: Early results indicate that self-monitoring has the potential to support person-centred care through improving patients' use of their own resources and partnership with healthcare. Data collection is still ongoing, and additional healthcare settings have been recruited.

Dribbling past chronic pain

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Background: Chronic pain profoundly affects daily life, and support is essential.

Aim: A project involving four studies aimed to elucidate the meaning of support among persons living with chronic pain and to perform an efficacy- and process evaluation of a remote person-centred intervention that combines telephone and eHealth support.

Methods: Study I used a qualitative design to elucidate the meaning of support among people living with chronic pain. Study II was a randomised controlled trial evaluating a remote person-centred intervention's effect on sick leave and self-efficacy. Studies III and IV were process evaluations examining the intervention's meaningfulness and the role of goal setting.

Results: Support was interpreted as a balancing act between being the most valuable player (being a capable person) and passing the ball (accepting help to maintain or enhance capability). Person-centredness aligned well with this meaning of support. The intervention significantly affected sick leave and self-efficacy. Participants perceived the intervention as meaningful, particularly the off-the-record person-centred conversations, whereas experiences of the eHealth platform were mixed. Goal attainment emerged as a key mechanism, highlighting the need to further explore the consequences of unmet goals.

Conclusion: Metaphors often open up for understanding phenomena on a deeper but still clarifying way. In this project a football metaphor illustrated a novel way of understanding support for people living with chronic pain and person-centred care, which appears to be both effective and meaningful. Further research should explore goal setting and attainment as mechanisms underlying person-centred interventions and the impact of medical records.

Exploring pain, fatigue, and physical activity in adolescents with Hypermobility Spectrum Disorder and/or hypermobile Ehlers-Danlos Syndrome

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Adolescents with Hypermobility Spectrum Disorder (HSD) and hypermobile Ehlers–Danlos Syndrome (hEDS) — two overlapping hereditary connective-tissue disorders characterized by joint hypermobility, chronic pain, impaired body perception, and musculoskeletal symptoms — are the primary focus of this doctoral thesis.

Aim: The aim was to better understand pain and its impact on function in activities of daily living in adolescents with HSD/hEDS.

Methods: This thesis comprises four studies conducted with three different cohorts of adolescents, including a total of 145 participants. Each cohort consisted of a group of adolescents with HSD/hEDS and a control group of healthy adolescents, in total 67 adolescents with HSD/hEDS and 80 healthy adolescents.

Hypermobility was assessed using the Del Mar Scale (Study I) and the Beighton Scale (Studies II–IV). Balance was evaluated with the Bruininks–Oseretsky Test of Motor Proficiency (Study I). Participation in activities of daily living was measured with the Frequency of Participation Questionnaire, while pain and physical activity were recorded in a diary (Study I). Features of central sensitization, including primary and secondary hyperalgesia, endogenous pain modulation, and exercise-induced hyperalgesia, were measured through experimental pain assessments (Studies II and III). Levels of physical activity were objectively measured using an Axivity AX3 triaxial accelerometer, and sleep patterns were collected with an activity–sleep diary (Study IV). Fatigue was evaluated using the Pediatric Quality of Life Inventory — Multidimensional Fatigue Scale, and pain catastrophizing was assessed with the Pain Catastrophizing Scale — Child version (Studies III and IV).

Results: In Study I, it was found that adolescents with HSD/hEDS had significantly more joint hypermobility, experienced greater pain, scored lower on balance tests, and were more affected in their activities of daily living, compared with the control group. Study II demonstrated the feasibility of using experimental pain measurements to investigate underlying pain mechanisms, particularly central sensitization. Study III applied these methods, showing increased general pain sensitivity and a partially reduced pain-inhibitory effect of exercise in adolescents with HSD/hEDS. In Study IV, it was found

that adolescents with HSD/hEDS devoted significantly more time to sedentary behavior and less time to moderate-to-vigorous physical activity, and exhibited more nighttime movement, compared with the control group. However, no association was found between fatigue and these activity patterns when pain catastrophizing was controlled for.

Conclusions: This thesis highlights that adolescents with HSD/hEDS are significantly impacted in their daily lives, especially in terms of pain, physical activity, and restricted participation in everyday activities. The research suggests a potential connection between HSD/hEDS and central sensitization. It suggests that pain should be understood as a complex issue influenced by central sensitization and biopsychosocial factors. Further, the thesis shows that adolescents with HSD/hEDS are less physically active and exhibit more sleep movements than the control group, which highlights the need for better physical-activity and sleep-health interventions in adolescents with HSD/hEDS. Future research should aim at developing targeted treatments to improve physical activity and alleviate pain in adolescents with HSD/hEDS.

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High-Frequency, High-Intensity Transcutaneous Electrical Nerve Stimulation for postoperative pain – evaluating a new treatment regime and a clinical bedside prediction test in outpatient surgery

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Abstract: The incidence of postoperative pain is high, even after minor surgery, despite multimodal analgesic treatment plans. The aim of this thesis is to explore ways to improve postoperative pain in outpatient surgery.

Study I examined a clinical bedside test, the assessment of pain during peripheral venous cannula insertion, in an observational study to predict postoperative pain intensity in the post-anesthesia care unit (PACU). The findings indicate that this test is useful for predicting pain and time in the PACU. **Study II** evaluated the pain-relieving effects of high-frequency, high-intensity transcutaneous electrical nerve stimulation (HFHI TENS) compared to opioids after outpatient gynecological surgery in a systematic review and a meta-analysis. Findings revealed no difference in pain relief between HFHI TENS and opioids. HFHI TENS was opioid-sparing and reduced time in the PACU. **Study III** investigated the effects on time in PACU and pain relief of HFHI TENS compared to opioids after laparoscopic cholecystectomy in a randomized controlled trial. The time in the PACU and pain intensity when leaving PACU did not differ between randomized groups, but patients randomized to HFHI TENS consumed significantly less opioids than patients randomized to opioids. **Study IV** explored patients' experiences of using HFHI TENS for postoperative pain relief in a qualitative interview study. Results showed that patients desire alternatives to pharmaceuticals for pain relief after surgery and that HFHI TENS increases feelings of safety and autonomy. **Study V** investigated healthcare professionals' experiences of using HFHI TENS for postoperative pain relief in an interview study. Opioids were considered simpler to administer than HFHI TENS, but HFHI TENS was acknowledged due to its prompt effect in responders and limited adverse effects.

Conclusion: Postoperative pain and time in the PACU can be predicted using a simple clinical preoperative test. HFHI TENS is an effective, opioid sparing alternative for postoperative pain relief, an option that is desired by the patients.

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Treatment on Time

Person-centred symptom management for children with cancer – advancing mHealth and mapping care approaches for prioritised symptoms

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Abstract

Background: Children (up to 17y) undergoing cancer treatment experiences multiple symptoms. Prioritised core symptoms are anxiety, fatigue, nausea and vomiting, pain, sadness/depression and sleep disturbances. Person-centred care emphasises listening to children's perspectives and supporting participation in decisions. However, children are not always given opportunities to have their voice heard despite their legal right to participate. Digital tools may facilitate symptom management and support person-centred care by strengthening children's participation. **Overall aim:** To strengthen person-centred symptom management for children treated for cancer through mHealth and mapping of care approaches. **Methods:** Study I had a mixed method design including 102 children (8-17y) to evaluate the content validity of an electronic assessment scale using hypothetical pain and think aloud interviews. Study II had a quantitative design including 86 children (8-17y) to evaluate construct validity for an electronic assessment scale using repeated postoperative pain assessments. Study III had a triangulation design combining qualitative and quantitative data and included 14 children (6-17y), 5 parents of the included children and 6 nurses to evaluate access to an mHealth tool in settings outside hospital. Study IV was a systematic scoping review of studies published between 2015-2025 on care approaches to relieve prioritised symptoms in paediatric cancer. **Findings:** Studies I-II showed that an electronic assessment scale may be used to assess pain. Study III demonstrated that an mHealth tool has the potential to support more person-centred symptom assessment and management. Reported barriers included motivational factors and limited support. Study IV identified care approaches targeting prioritised core symptoms. The most common interventions were approaches involving psychological or cognitive processes influencing physical symptoms (for example, virtual reality) to manage anxiety and pain. **Conclusion:** A validated assessment scale, an accessible mHealth tool and identified care approaches may strengthen person-centred symptom management by making children's symptoms visible, understood and managed.

Keywords: Access, cancer, children, eFTS, mHealth, person-centred care, PicPecc, symptom assessment, symptom management

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Temporomandibular Disorders in Head and Neck Cancer: Risk Factors, Patient Perspectives, and Strategies for Prevention

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Abstract

Treatment of head and neck cancer (HNC) includes radiotherapy (RT), chemotherapy, and surgery and may impair functions resulting in orofacial pain, oral dysfunction, and impaired quality of life. Despite this, few studies describe temporomandibular dysfunction (TMD) and possible prevention in patients treated for HNC.

Aim: The overall aim is to improve the understanding of patient experience and to investigate the prevalence, possible risk factors, and outcome of preventive exercise for TMD in patients with HNC.

Material and method: In Study I, patients with oropharyngeal tumors were included retrospectively (n = 217). TMD prevalence before oncological treatment and at 6- and 12-months posttreatment were assessed. Study II, a qualitative interview study, included 10 HNC patients post treatment. Data analysis was based on qualitative content analysis. Studies III and IV are based on a prospective and randomized controlled trial with HNC patients (n = 58) randomized into either control or intervention groups before oncologic treatment with a one-year follow-up. Intervention consisted of preventive daily jaw-exercise during radiotherapy. Patients were followed using both objective measurements (Diagnostic Criteria for TMD) and validated questionnaires.

Results: Study I: Symptoms of TMD increased 12 months post-RT. Possible factors affecting the increase in TMD symptoms were brachytherapy, mouth opening prior to treatment, self-reported depression, and overall health status. Study II: The results provided a variety of post-treatment consequences, both physical, cognitive, and social. Themes such as emotions and coping strategies both before and after cancer treatment were revealed, indicating a need for a more individually designed approach, support, and rehabilitation. Study III showed that preventive jaw-exercise effectively preserved maximal inter-incisal mouth-opening (MIO) and prevented the development of myalgia both at 6 and 12 months post RT. Study IV confirmed that jaw-exercise helps to protect against decline in MIO and the development of myalgia. A TMD diagnosis at baseline was identified as a risk factor for post-treatment myalgia, whereas no other significant baseline predictors of TMD development were found.

Conclusions: TMD-symptoms are common after RT for HNC patients and are perceived to negatively impact daily life. Jaw-exercises before and during RT may help prevent the development of TMD.

Keywords: Head and neck cancer, prevention, temporomandibular disorders, predictive Temporomandibular disorders (TMD); head and neck neoplasms; radiotherapy; Symptoms.

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